

# Spotlight on beautiful waterborne Alkyds



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# The renaissance of Alkyds

## - Entering waterborne Alkyds

1. Waterborne Alkyds – the sustainable option
2. Best in wood protection
3. Even better with Perstorp's Voxtar™



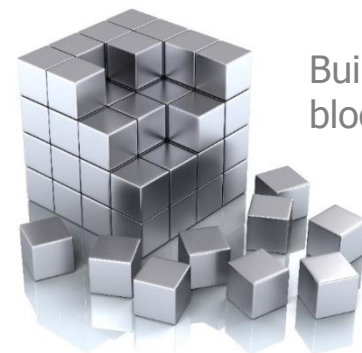
# Drivers



Top quality products



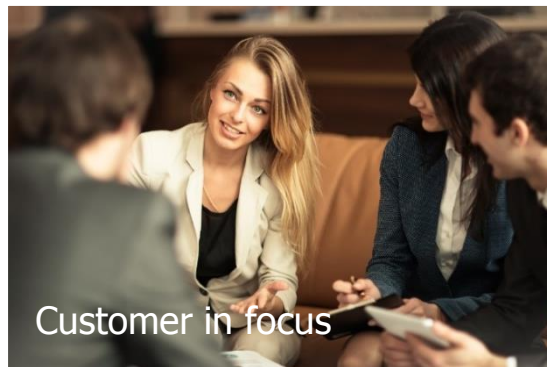
Sustainability and low VOC



Buildings  
blocks



Support and  
Security of supply



Customer in focus



Partner



# The Alkyd journey

**1940's**

The alkyd journey started

**1960's**

Focus on work-environment

**1980-90's**

Launch of waterborne solutions for outdoor

**2005**

Focus on atmosphere damaging products

**2010**

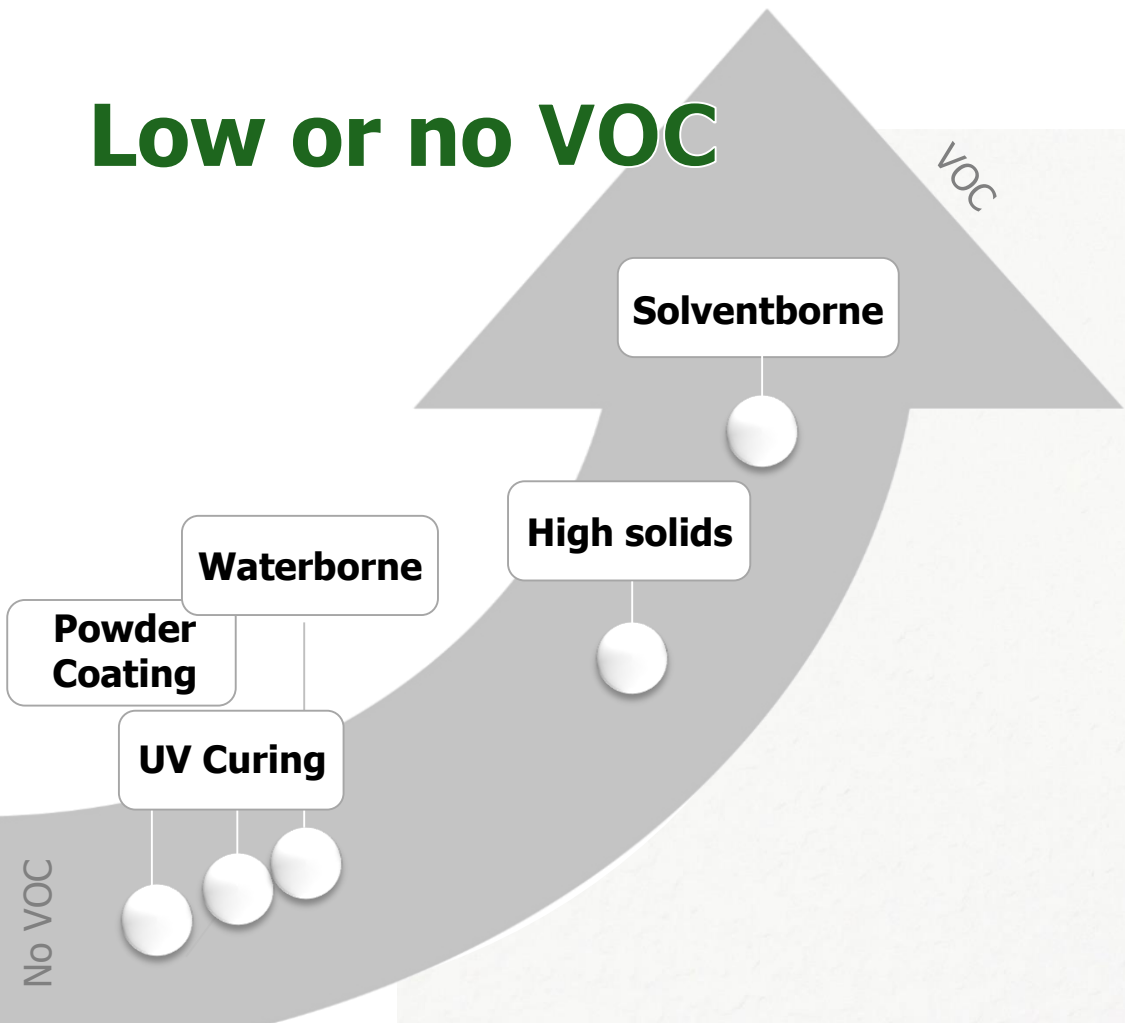
- Focus on total systems
- Improved technologies

**Focus now:**

- VOC
- Carbon footprint
- Renewable based

Shift in focus over the years resulted in a decline in Alkyd use

# Low or no VOC

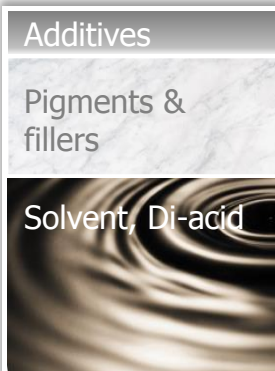
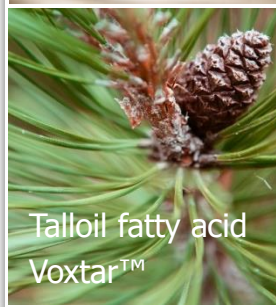
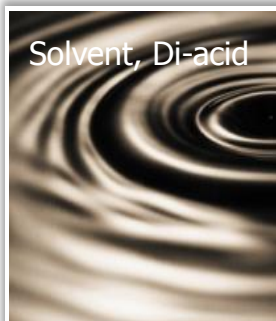


# Waterborne or solventborne Alkyds

## Solventborne

**Resins**

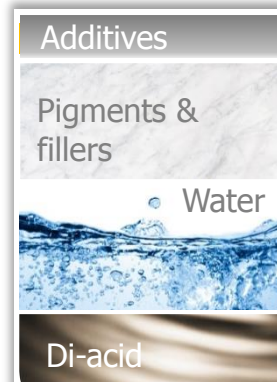
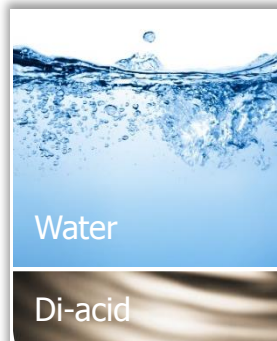
**Coatings**



## Waterborne

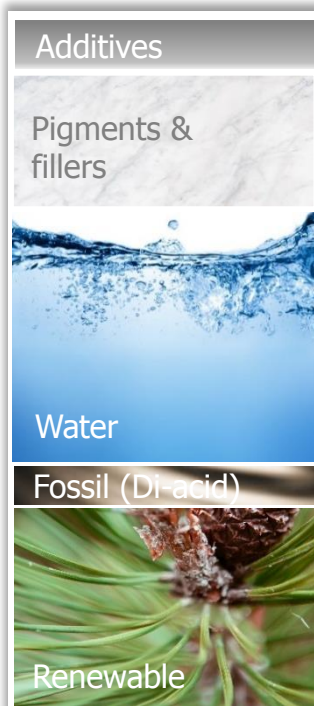
**Resins**

**Coatings**

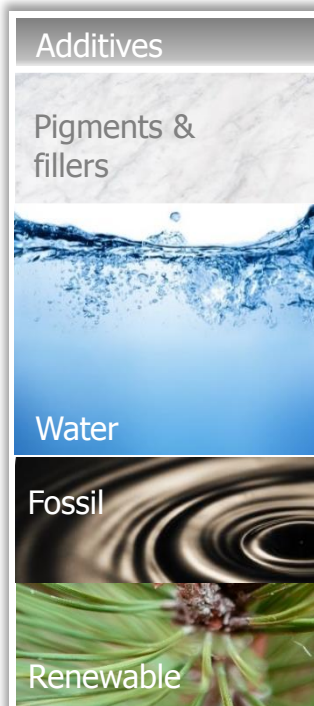


# Waterborne Coatings

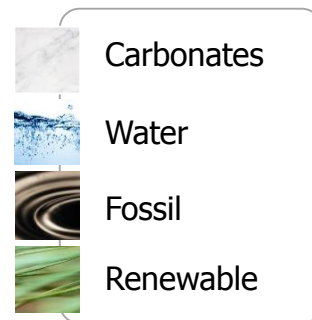
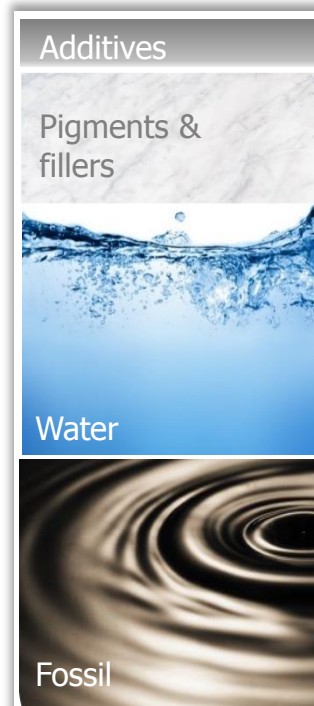
## Alkyds



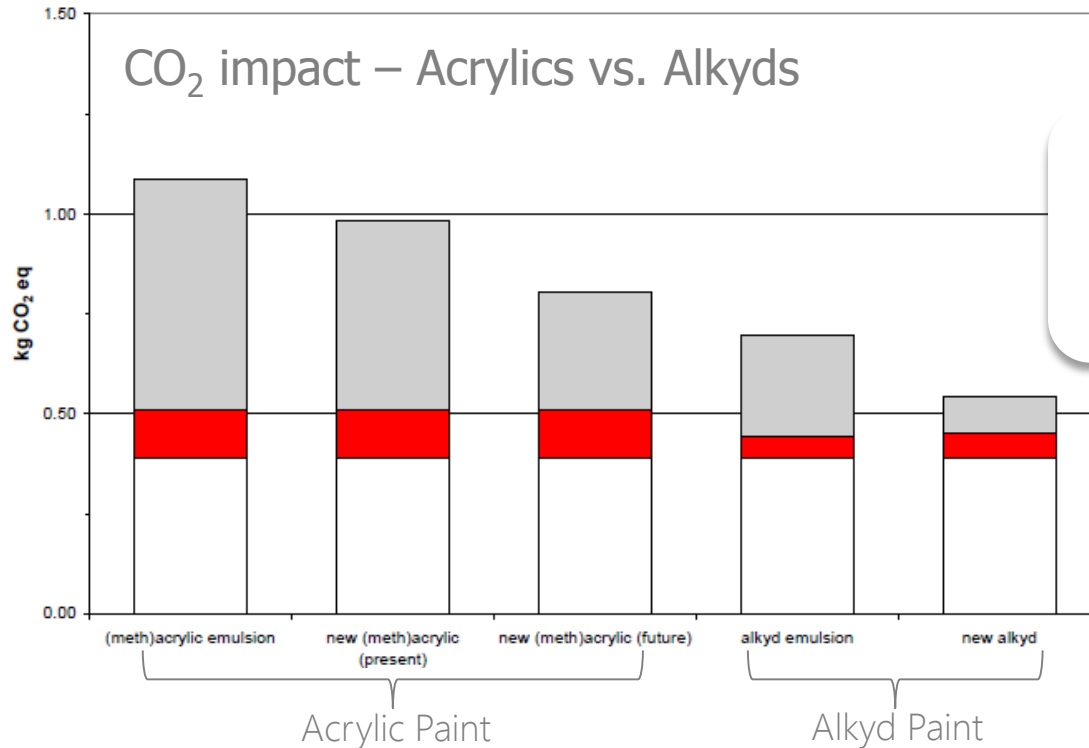
## Hybrides



## Acrylics



# CO<sub>2</sub> impact

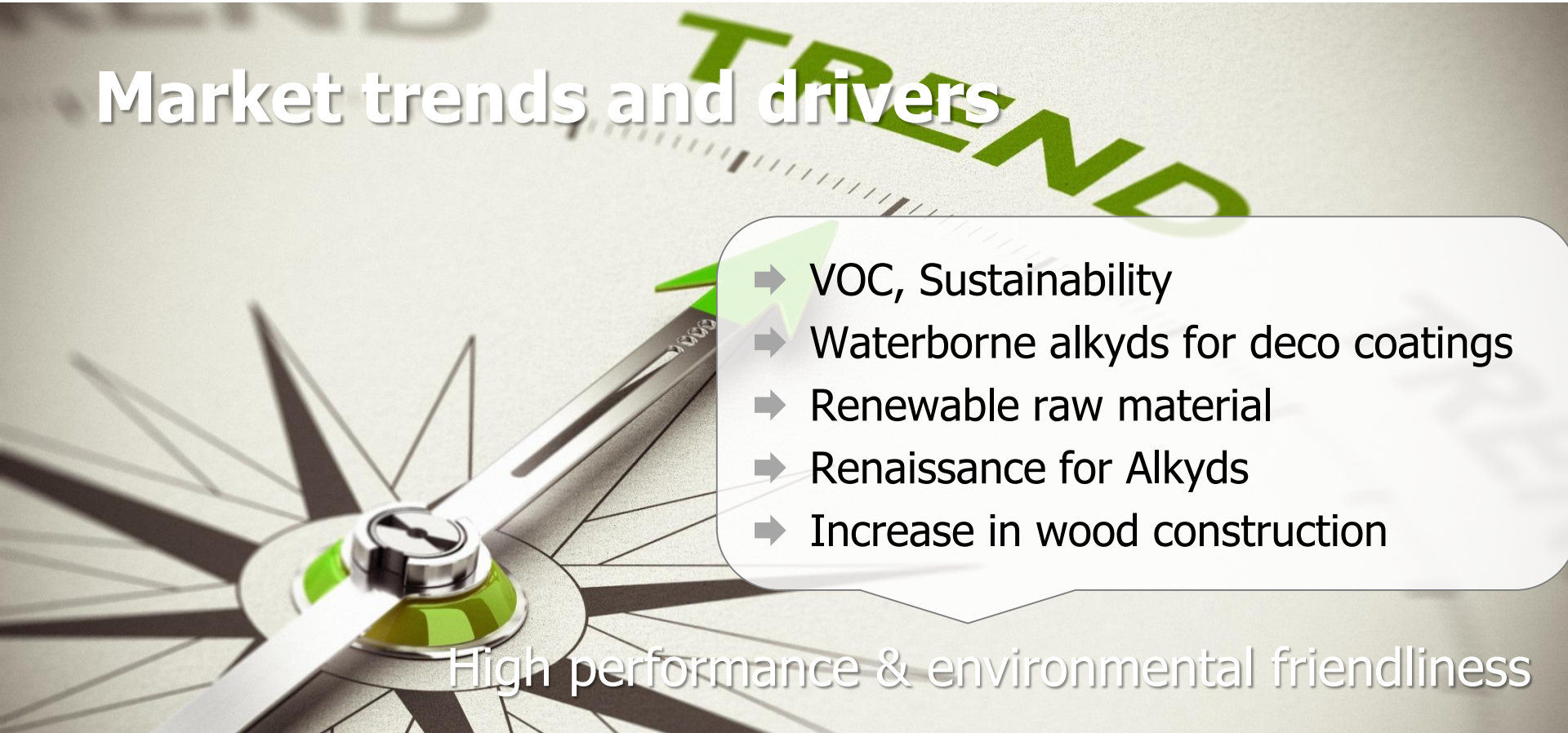


Alkyds, up to 50% lower CO<sub>2</sub> impact

- Resin
- Others, as additives
- Pigments and fillers



# Market trends and drivers

- 
- ➔ VOC, Sustainability
  - ➔ Waterborne alkyds for deco coatings
  - ➔ Renewable raw material
  - ➔ Renaissance for Alkyds
  - ➔ Increase in wood construction

High performance & environmental friendliness

# The renaissance of Alkyds

## - Entering waterborne Alkyds

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# Beautiful waterborne Alkyds

1. The sustainable option

2. Best in wood protection

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Renewable raw material

Low VOC



**Low carbon footprint**



Outstanding wood protection





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## Solventborne

## Waterborne

In general high VOC



Low or no VOC

Cobalt (listed as carcinogenic)



Iron complex replacing Cobalt

MEKO (carcinogenic)



No MEKO

**Even better with waterborne**



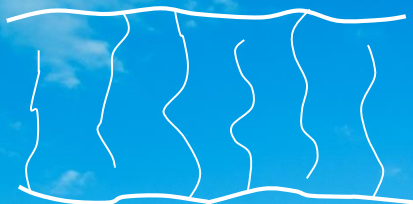
# Beautiful alkyds

1. The sustainable option

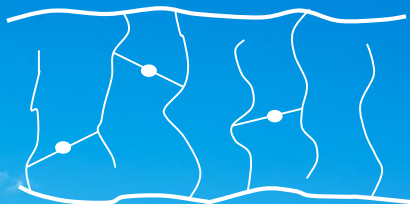
2. Best in wood protection

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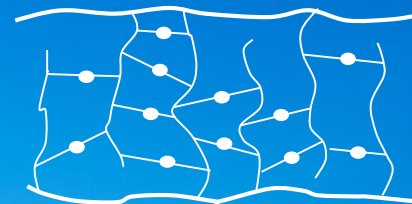
## Oxidative process once paint is applied



No contact with air



In contact with air



Dry

**The only additive needed is air!**

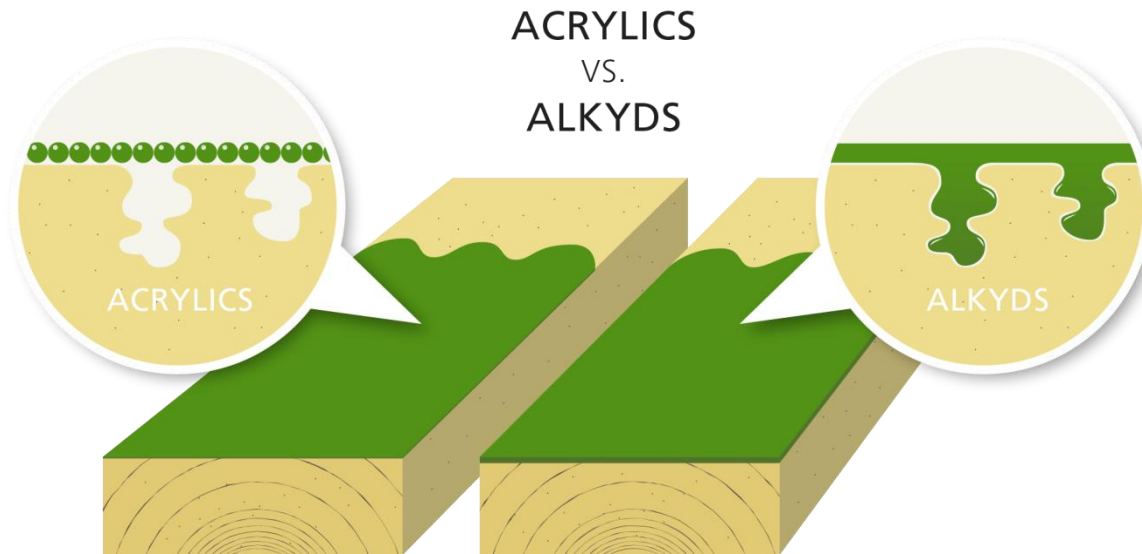
# Best in wood protection

- > Penetrates the wood for longer lasting protection
- > Outstanding metal protection
- > Acrylics forms a film on top of the wooden surface

1. The sustainable option

2. Best in wood protection

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# Even better with Voxtar™

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## Voxtar™

Pure advantage

# Our green Penta – VOXTAR™

- Voxtar™ - Our range of renewable Penta products
- Up to 100 % renewable raw material\*
- Up to 80 % lower carbon footprint\*\*

Same trusted **efficiency, security and high performance** you expect from PENTA

\* Based on a mass balance system \*\* Cradle to grave, compared to European average

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# Waterborne Alkyds

Our three developed technologies

Externally stabilized alkyd emulsion

Internal stabilized water thinnable

PUD alkyd technology

